

Title (en)
LINEAR FRICTION WELDING METHOD

Title (de)
VERFAHREN ZUM LINEAREN REIBSCHWEISSEN

Title (fr)
PROCÉDÉ DE SOUDAGE PAR FROTTEMENT LINÉAIRE

Publication
EP 3578286 A1 20191211 (EN)

Application
EP 18747104 A 20180201

Priority
• JP 2017017997 A 20170202
• JP 2018003392 W 20180201

Abstract (en)
A linear friction welding method capable of accurately controlling a welding temperature and capable of lowering the welding temperature is provided. The present invention is a linear friction welding method comprising: a first step of forming a welded interface by bringing one member into contact with the other member; a second step of repeatedly sliding one member and the other member on the same locus and discharging flash from the welded interface in a state where pressure is applied substantially perpendicularly to the welded interface; and a third step of forming a welded surface by stopping the sliding and setting the pressure to be not less than the yield stress and not more than the tensile strength of one member and/or the other member at a desired welding temperature.

IPC 8 full level
B23K 20/12 (2006.01)

CPC (source: EP KR US)
B23K 20/12 (2013.01 - EP); **B23K 20/1205** (2013.01 - KR US); **B23K 20/122** (2013.01 - KR); **B23K 20/22** (2013.01 - EP);
B23K 31/12 (2013.01 - EP US); **B23K 31/125** (2013.01 - EP); **B23K 20/22** (2013.01 - US); **B23K 2103/02** (2018.07 - EP US);
B23K 2103/14 (2018.07 - EP US)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3578286 A1 20191211; **EP 3578286 A4 20200212**; CN 110520238 A 20191129; CN 110520238 B 20220201; JP 2018122344 A 20180809;
JP 6819959 B2 20210127; KR 102182709 B1 20201124; KR 20190113875 A 20191008; US 11273518 B2 20220315;
US 2021129263 A1 20210506; WO 2018143335 A1 20180809

DOCDB simple family (application)
EP 18747104 A 20180201; CN 201880010054 A 20180201; JP 2017017997 A 20170202; JP 2018003392 W 20180201;
KR 20197025425 A 20180201; US 201816479043 A 20180201